

**CERTIFIED AGGREGATE
PRODUCER PROGRAM
PARTIAL AUDIT CHECKLIST**

Date _____

Page ____ of ____

Source No. _____

Q No. _____

Plant/Redistribution Terminal Name _____

Plant/Redistribution Terminal Location _____

INDOT Audit Team Members

	<u>Name</u>	<u>Position</u>
1.	_____	Geologist
2.	_____	Area Supervisor
3.	_____	Aggregate Technician
4.	_____	_____
5.	_____	_____

Plant/Redistribution Terminal Members

	<u>Name</u>	<u>Position</u>
1.	_____	Certified Agg. Tech.
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

1. GENERAL INSTRUCTIONS

Certified Aggregate Producer Program (CAPP)
Quality Control Plan (QCP)
Certified Aggregate Technician (CAT)

Any square bracket marked by an X on the Audit Checklist requires a Corrective Action Sheet to be prepared. The Corrective Action Sheet will be prepared when a deficiency is found, and a copy given to the Producer by the end of the audit. All other square brackets shall have a check, if the item is satisfactory, or NA if not applicable.

Begin the audit by reviewing the QCP before arriving at the Producer's site. Likewise, checklists prepared during previous audits, especially the last one, will be reviewed. An advance notification of one day will be given to the Producer of a scheduled partial audit. The audit will take place during a normal working day.

The Addenda Summary Sheet and QCP Annex, if applicable, are required to be maintained in the QCP Appendix.

1.1 [] Addenda Summary Sheet and QCP Annex reviewed

2. DIARYITM 211 Reference

10.0

12.5

12.7

Select at random one active production week for review of the diary. The diary shall be in accordance with the following requirements and information.

- 2.1 [] General weather conditions
- 2.2 [] Areas of mining operation - ledges or pit area
- 2.3 [] Materials produced and estimated quantities
- 2.4 [] Materials sampled and tested
- 2.5 [] Time samples were obtained and tests completed (may state that all samples obtained were tested the same day)
- 2.6 []* Changes in key personnel
- 2.7 []* Significant changes in equipment, plant, screens, etc
- 2.8 []* Significant events or problems
- 2.9 []* Nonconforming trend in 5-point moving average of control chart (7 or more points in a row are above or below target mean, or 7 or more points in a row are increasing or decreasing)
- 2.10 [] Signature by Certified Aggregate Technician
- 2.11 []* Other persons signature -- counter-signed by Certified Aggregate Technician

Any nonconforming normal production or load-out test shall be followed immediately by corrective action. Search control charts for nonconforming tests for the week being reviewed. When some are found, review the diary on the date of each test for notations regarding action taken.

- 2.12 [] Nonconforming tests are noted in diary
- 2.13 [] Corrective action was taken
- 2.14 []* After second consecutive nonconforming normal production test, notations indicate that the material was isolated
- 2.15 []* After second consecutive nonconforming load-out test, notations indicate that shipping from the stockpile was stopped

* Only If Occurs

3. SAMPLING AND TESTINGITM 211 References

11.0
14.2.5
14.2.8
14.2.9

*The method of recording the quantities of materials **produced** at the Plant per day or time period will be identified in the QCP. Select an active one week period at random from this record. Obtain all production test reports for materials produced during the one week period. Perform calculations as needed and compare the quantities produced against the production test reports, thereby determining the demonstrated frequency of testing. The previous or subsequent weekly record may need to be obtained to verify the frequency of tests.*

- 3.1 [] Start of production frequency is in accordance with QCP, but is not less than once every 1000 t for the first 5000 t (except not required to exceed 2 per day)
- 3.2 [] Normal frequency is in accordance with QCP, but is not less than once every 2000 t (except not required to exceed 2 per day)

*The method of recording the quantities of materials produced at the Plant that are **shipped** per day or time period will be identified in the QCP. Select an active one week period at random from this record. Obtain all load-out test reports for materials shipped during the one week period. Perform calculations as needed and compare the quantities of materials shipped against the load-out test reports, thereby determining the demonstrated frequency of testing. The previous or subsequent weekly record may need to be obtained to verify the frequency of tests.*

- 3.3 [] Load-out frequency is in accordance with QCP, but is not less than once every 8000 t or at least one sample and test performed per month for shipments that exceed 1000 t for each Certified Material

SAMPLING AND TESTING (continued)

If material is obtained from another Certified Producer and is a Certified Material, then load-out tests are required. If the material is obtained from a Non-Certified Producer or is not a Certified Material, then the start of production, normal production and load-out tests are required. Search the one week period for these materials, if applicable, and verify that the required tests have been conducted.

- 3.4 [] Load-out test conducted for Certified Material from another Producer
3.5 [] Start of production, normal production and load-out tests conducted for material that is not Certified and is received from another Producer

Select randomly one production test report and one load-out test report for any one product and check all calculations performed on the sheets.

- 3.6 [] Calculations on all sheets are correct and rounded to the first decimal place (0.0) (crushed particle content values shall be rounded to the whole number (0))

The Producer shall check coarse aggregates for deleterious materials. Search the production test reports for deleterious test results during the one week period.

- 3.7 [] Start of production and normal production frequency is in accordance with QCP, but is not less than once per week for each size of Certified Material. (no test is required if the weeks production is less than 100 t)

Gravel Producers, or Redistribution Terminals that are handling gravel products made at non-certified plants, shall verify the percentage of crushed aggregate particles unless the QCP states otherwise. Search the production test reports for crushed particle test results during the one week period.

- 3.8 [] Start of production and normal production frequency is in accordance with QCP, but is not less than once per week for each size of Certified Material. (no test is required if the weeks production is less than 100 t)

Air-Cooled Blast Furnace Slag, except for use in HMA or PCC, is required to be sampled and tested in accordance with ITM 212. Search the one week period for this material, if applicable, and verify that the required tests have been conducted.

- 3.9 [] Frequency is in accordance with QCP, but is not less than once for each 2000 t stockpile

4. MATERIAL

Obtain production and load-out test reports for one critical sieve material for the one week period. Find the corresponding control chart and check for the following.

- Product with critical sieve selected was: _____
- 4.1 [] All test dates have points plotted
 - 4.2 [] All points are plotted correctly
 - 4.3 [] Average of 5 test value points plotted correctly for one randomly selected point within the one-week period
 - 4.4 [] Calculations for one selected test are correct

Obtain production and load-out test reports for one material not controlled by a critical sieve for the one week period. Find the corresponding control chart and check for the following:

- 4.5 [] All test dates have points plotted
- 4.6 [] All points are plotted correctly
- 4.7 [] Calculations for one selected test are correct

5. MATERIAL SAMPLESITM 211 References

11.0 14.2.5 14.2.9

14.2.8 15.0

The Producer's Certified Technician shall obtain a minimum of one sample of a Standard Specification or Quality Assurance material under production at the site on the day of the audit. If there is no production then the sample(s) shall be obtained from an existing stockpile. The stockpile shall be selected by an INDOT audit team member.

The sample(s) obtained shall be split by the CAT. The INDOT audit team member shall be given the Department's portion of the sample(s) for testing.

Sampling and sample reduction procedures for the sample(s) obtained shall be observed to verify that they comply with the corresponding checklists or as stated in the QCP.

- 5.1 [] Stockpiling procedure is in accordance with QCP
- 5.2 [] Stockpiles are adequately spaced and not contaminated
- 5.3 []* All stockpiles have signs as indicated in QCP
- 5.4 [] Air-cooled blast furnace slag stockpiles for leachate testing are approximately 2000 t in size
- 5.5 []* Stockpile map is current and located as indicated in QCP
- 5.6 [] Sampling procedures are correct
- 5.7 [] Sampling reduction procedures are correct

* Only If Occurs

MATERIAL SAMPLES (continued)

The following test results will be determined. A copy of all test reports from both the INDOT Technician and the CAT will be attached to the audit checklist. The variation of test results will be shown in the remarks section of the INDOT Technician's report. The allowable variation will be as follows:

<u>Sieve Size</u>	<u>Maximum % Difference</u>
1½ in. thru 3/8 in.	5
No. 4 thru No. 8	3
Minus No. 200 (Decant < 5.0)	0.5
Minus No. 200 (Decant ≥ 5.0)	1.0
 <u>Non-Durable, Total Chert</u>	 40% of lowest result or 1%, whichever is greater
 <u>Crushed Particles</u>	 5 (Both one and two face)

- 5.7 [] Gradation is within limits for critical sieve material
- 5.8 [] Gradation is within Specification Limits or QCP identified limits on all sieves for material without a critical sieve
- 5.9 [] Decant is within limits
- 5.10 [] Deleterious is within limits
- 5.11 []* Crushed particles are within limits

* Gravel Producers and Redistribution Terminal Producers handling gravel materials

6. DOCUMENTSITM 211 References

2.5

Determine whether the following documents are current and on file at the Producer's site or location indicated in QCP.

- 6.1 [] Summary of Production Quality Test Results Letter
- 6.2 [] AP Aggregate Approval Letter (if applicable)
- 6.3 [] Supplemental Specifications (sections 211, 301, 302, 303, 904 and 917)

7. AUDIT CLOSE-OUT

The Audit Close-Out meeting with the Producer will be conducted at the completion of the audit. The results of the audit will be discussed, and all outstanding matters will be completely resolved or deficiencies requiring deadlines will be established. When the INDOT test results of the split samples are complete and results analyzed, an additional meeting with the Producer will be scheduled to review the results.

When all the results from the audit have been accumulated, including Audit Checklist pages, Sampling and Sample Reduction Checklists, INDOT test report, Corrective Action Sheet(s), and other documentation as may be appropriate, the Area Supervisor shall review the documents to verify that they are properly prepared and complete.

Upon completion of the Audit, all documents will be sent to the District Materials and Tests Engineer.

Aggregate Technician

Date